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Review Article

A CONCEPTUALIZED STUDY ON UNDERSTANDING OF *PUYALASA* WITH REFERENCE TO DACRYOCYSTITIS

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ABSTRACT

Every disease in *Ayurveda*, the science of life has a different view in understanding a disease in a systematic way. Among the *Astangas* of *Ayurveda*, *Shalakya tantra* is given importance equally by all *Acharyas. Acharya Sushruta* has explained seventysix eye diseases with their medical and surgical management in detail. *Puyalasa*, one of the *Sandhigataroga* can be correlated to dacryocystitis based on the symptomatology which includes swelling in *Kaninika sandhi*, which later on undergoes suppuration causing thick purulent discharge. Dacryocystitis is the inflammation of the lacrimal sac is not an uncommon condition, which is an important cause of ocular morbidity, both in children and adults. The management constitutes of simple topical medication to surgery and with certain amount of recurrences. Though *Puyalasa* is due to *Tridosha* it is considered as a curable disease and the treatment includes *Siravyadha*, *Upanaha* and *Anjana kriya* and internal medication which can reduce the recurrence rate and other secondary diseases in eyes. The clinical features and the treatment of Dacryocystitis has similarities with the disease *Puyalasa* which has been told by our ancient seers. The drugs mentioned in the treatment of the disease *Puyalasa* are mainly having *Doshahara guna*, *Vrana shodhaka guna* and are *Chakshushya*. Based on the *Yukti* of the physician the selection of the appropriate treatment depends and based on this the recurrence rate of the disease can be controlled well.

KEYWORDS: *Puyalasa, Sandhigataroga, Dacryocystitis, Chikitsa.*

INTRODUCTION

The importance of *Netra* among all sense organs is quoted in *Ayurveda* as *Sarvendriyanam nayanam pradhanam i.e.,* eye is the prime sense organ among the all sense organs[1]. *Netra rogas* are classified in a specific way into 76 types[2] by *Susrutha,* 94 types by *Vagbhata*. Among that *Sandhigata netra roga* consists of nine diseases[3] and *Puyalasa* is one among these 9 *Sandhigata netra roga* which occurs specifically in *Kaninika sandhi*[4]. It is said to be a *Sadhya vyadhi*[5] though it is *Tridoshaja*, as the selection of particular drugs and treatment based on the stage helps to combat the pathology easily. Dacryocystitis commonly occur in 2 discrete age categories, infants and adults older than 40 years. Acute dacryocystitis in new borns is rare, occurring in fewer than 1% of all new borns. Acquired dacryocystitis is primarily a disease of females and is most common in patients older than 40 years, with a peak in patients aged 60-70 years. Epiphora one of the cardinal feature in this condition is found to high in incidence about 33% due to Dacrocystitis.

Puyalasa According to Different *Acharyas*

***Sushrutha*:** A condition in which there will be *Pakwasopha* (inflammation) occurring at the *Kaninika sandhi* (inner canthus) causing *Sandra putigandha yukta puyasrava* (thick purulent discharge)[6].

***Vagbhata*:** *Sukshma vrana* occurring in *Kaninika sandhi* (inner canthus) producing *Sopha/samrambha* (inflammation) causing *Adhmana* in *Kaninika* leading to *Puyalasa*[7].

***Yogaratnakara*:** *Pakvasopha*(inflammation) in the *Sandhi* causing *Suchibedhavat toda*(pain as if pricking by needle) along with *Putigandhayuktha puyasrava*(thick purulent discharge)[8].

All the *Acharyas* state this as a *Tridoshaja Bhedana Sadhya Vyadhi*[10]. With an another understanding of this disease under the concept of *Vrana*: In the word *PUYALASA "Puya"* means pus, *"Alasa"* means collection, without flow[11].*Sandra puyasrava* is the characteristic feature of *Mamsagata vrana*[12].

The site of clinical manifestation of *puyalasa* is specified by *Deepika* in commentary of *Sharangadhara* as the place between nose and the beginning of eye i.e., *Kaninika sandhi*[13] which can be perceived as medial canthus. *Vagbhata* has specifically described that the pathological events in *Puyalasa* takes place in two stages:

Stage 1: Stage of *Sopha*: swelling in *Kaninika vartmasandhi*.

Stage 2: Stage of *Vrana*: a small ulcer discharging the contents. After one such episode, it usually relapses within few days[14].

Treatment Protocol

According to *Sushrutha*

- *Rakta mokshana* is the treatment of choice for *Puyalasa*. As mentioned by *Dalhana* it should be done after *Snehana* and *Swedana*.

- *Upanaha* (bandaging) with drugs having *Dosahara, Vranashodhana, Chakshushya* properties.
- *Kritsnavidhi*- both internal and external purificatory procedures.
- *Pakanathi*- treatment of the suppurated wounds[15].
- Treatment of *Vranashotha* can be advocated depending upon the stages. In the first stage, *Vimplapana,* or firmly pressing and squeezing by thumb helps for the early suppuration. This should be done after *Snehana* and *Swedana* of the affected part.

According to *Vagbhata*

- ***Siravyadha:*** The *Siras* of the frontal region (*Lalata*) should be selected for *Vyadhana*-"*Shironetra vikareshu lalata"*[16].
- *Jaloukavacharana* helps to relieve the condition.
- After *Siravyadha*, *Upanaha* (bandaging) has to be done.
- *Akshipakatyaya chikitsa* should be followed[17].

Specific *Anjana yogas* that benefits in general

- The powders of *Saindhava, Ardraka, Kasisa, Loha, Tamra* mixed with *Madhu*[18].
- *Varti* is prepared from *Sukshma churna* of *Loha, Tamra, Pippali, Amlavetasa, Saindhava*, *Madhu* are taken in *Sama pramana* for quick relief from *Puyalasa*[19].
- *Churnas* of *Saindhava* and *Kasisa* are taken and do *Mardana* with *Ardraka swarasa*. *Anjana* is made by this is an exclusive remedy for *Puyalasa*[20].

Prognosis

Indu, the commentator of *Ashtanga sangraha* opines that if the management of *Puyalasa* is not properly done, it will lead to *Pilla* stage. If the condition continues, it should be treated with *Agnikarma*, using fine tipped hot needles[21].

Dacrocystitis

Inflammation of the lacrimal sac is not an uncommon condition.

Broadly can be classified into two types:

Chronic Dacryocystitis[22]

It is more common than the Acute dacryocystitis with multifactorial etiology. The well established fact is a vicious cycle of stasis and mild infection of long duration.

The etiological factors can be grouped under

Predisposing factors	Factors responsible for stasis of tears in lacrimal sac	Source of infection	Causative factors
1. More common in between 40 and 60 years of age. 2. More seen in females.	1.Anatomical factors which retard drainage of tears. 2.Foreign bodies in the sac. 3.Excessive lacrimation. 4.Mild grade inflammation of lacrimal sac. 5.Obstruction of lower end of the naso-lacrimal duct by nasal diseases	1.Lacrimal sac may get infected from the conjunctiva, nasal cavity or paranasal sinuses	1.Staphylococci. 2.Pneumococci. 3.Streptococci. 4.Pseudomonas pyocyanea. 5.Rarely chronic granulomatous infections like tuberculosis, syphilis, leprosy and occasionally rhinosporiodosis may also cause dacryocystitis

Clinical Features

Clinical features of chronic dacryocystitis may be divided into four stages

Stage of chronic catarrhal dacryocystitis	Stage of lacrimal mucocele	Stage of chronic suppurative dacryocystitis	Stage of chronic fibrotic sac
Mild inflammation of the lacrimal sac associated with blockage of naso-lacrimal duct. Watering eye is the only symptom in this stage. **Regurgitation Test:** Clear fluid or few fibrinous mucoid flakes regurgitate. **Dacryocystography** reveals block in naso-lacrimal duct.	It follows chronic stagnation causing distension of lacrimal sac: Epiphora associated with a swelling just below the inner canthus. **Regurgitation Test:** Milky or gelatinous mucoid fluid regurtitates from the lower punctum on pressing the swelling. **Dacryocystography** reveals a distented sac with blockage somewhere in the nasolacrimal duct.	Due to pyogenic infection, the mucoid discharge becomes purulent, converting the mucocele into 'pyocele'. Epiphora associated with recurrent conjunctivitis and swelling at the inner canthus with mild erythema of the overlying skin. **Regurgitation Test:** Frank purulent discharge flows from lower punctum. If openings of canaliculi are blocked at this stage the so called **encysted pyocele** results.	low grade repeated infections for a prolonged period ultimately results in a small fibrotic sac due to thickening of mucosa, which is often associated with persistent epiphora and discharge. **Dacryocystography** at this stage reveals a very small sac with irregular folds in the mucosa.

Complications

- Chronic intractable conjunctivitis
- Ectropion of lower lid
- Corneal ulcerations
- High risk of developing endophthalmitis is always there if an intraocular surgery is performed in the presence of dacryocystitis.

The occurrence of these complications can be emphasized on what our ancient seers have stated i.e., leading to *Pilla rogas.*

Treatment

1.Conservative treatment: By probing and lacrimal syringing - useful in recent cases only.

2. Ballon catheter dilation (ballon dacryocystoplasty): Done in patients with partial nasolacrimal duct obstruction.

3. Dacryocystorhinostomy (DCR): This is the operation of choice as it re-establishes the lacrimal drainage. Before surgery, it should be controlled by topical antibiotics and repeated lacrimal syringing.

4. Dacryocystectomy (DCT): It should be performed only when DCR is contraindicated in too young (less than 4 years) or too old (more than 60 years), markedly shrunken and fibrosed sac and in cases which are secondary to systemic disorders.

5.Conjunctivodacryocystorhinostomy (CDCR): It is performed in the presence of blocked canaliculi.

Acute Dacryocyctits

It is an acute suppurative inflammation of the lacrimal sac, characterised by presence of painful swelling on the region of sac.

Etiology: May occur due to direct involvement from the neighbouring structures such as paranasal sinuses, dental abscess, surrounding bones or upper jaw teeth caries.

Causative organisms commonly involved are pneumococcal, streptococcus, haemolyticus, staphylococcus.

Clinical Features

- Stage of cellulitis: painfull swelling in the region of lacrimal sac, epiphora, fever and malaise. The swelling will be red, firm, tender.
- Stage of lacrimal abscess: continued inflammation causes occlusion of the canaliculi due to oedema. The sac is filled with pus, distends and its anterior wall ruptures forming a pericystic swelling.
- Stage of fistula formation: when lacrimal abscess is left unattended, it discharge spontaneously leaving an external fistula below the medial palpebral ligament. Rarely abscess may open into the nasal cavity forming an internal fistula.

Complications

Acute conjunctivitis, corneal abscess, lid abscess, osteomyelitis of lacrimal bone, orbital cellulitis, facial cellulitis, acute ethmoiditis. Rarely cavernous sinuses thrombosis and generalised septicaemia may develop.

Treatment

During the stage of cellulitis: It consists of systemic and topical antibiotics to control infection and systemic anti inflammatory analgesic drugs and hot fomentation helps to relieve pain and swelling.

During the stage of lacrimal abscess: In addition to the above treatment, when pus starts pointing on the skin, it should be drained with a small incision. The pus should be gently squeezed out, the dressing done with betadine soaked roll gauze. Later on depending upon condition of the lacrimal sac either DCT or DCR operation should be carried out, otherwise recurrence will occur.

Treatment of external lacrimal fistula: After controlling the acute infection with systemic antibiotics, fistulectomy along with DCT or DCR operation should be performed.

An Bird's Eye view On Parlances

Clinical Features	
Ayurvedic View	**Modern View**
➢ *Sandra Puya Srava* ➢ *Sopha and Samrambha.* ➢ *Adhmana in Kaninika.*	➢ Thick purulent discharge ➢ inflammation of the lacrimal sac ➢ Swelling in the region of lacrimal sac
TREATMENT ASPECT	
Ayurvedic View	**Modern View**
➢ *Bhedhana* followed by *Lekhana* ➢ *Rakthamokshana-Siravyadha* ➢ *Upanaha sweda* ➢ *Shotaghna lepa* ➢ *Bandhana*	➢ Drainage with small incision in the stage of lacrimal abscess ➢ Use of antibiotics ➢ Hot fomentation and analgesics ➢ Use of anti-inflammatory drugs ➢ Bandaging is done after drainage of pus.

CONCLUSION

The proper understanding of every stage in *Puyalasa* helps to plan the treatment appropriately and relieve the condition completely. Both *Antah parimarjana* and *Bahir parimarjana chikitsa* are explained in this condition which helps in avoiding recurrence of the disease. The drugs used in the treatment of this disease are having *Doshahara guna, Vrana shodhaka guna* and are *Chakshusya.*

Based on the *Yukti* of the physician, the permutations and combinations of drugs depending upon the condition of the disease is selected and used appropriately. The phytonutrients and active compounds in the drugs mentioned in our science helps to tackle the *doshas* at different levels by counteracting the pathogenesis of the disease. If the proper procedures are adopted as mentioned by *Acharyas* it helps to avoid the recurrence of the disease, thereby benefitting the patients by avoiding the surgeries.

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